

CONCLUSIONS OF THE 1ST NSG MEETING IN LISBON

21st April 2014

LISBON CITY HALL, PORTUGAL

1. INTRODUCTION

The Portuguese National Supporting Group (NSG) gathers a high diversity of members (e.g. national, regional and local public authorities related with mobility and environmental issues, regional tourism boards, public transport operators, vehicle manufacturers, university and research centres related with sustainable mobility, SME and NGO working on mobility areas, media specialised on electric mobility), therefore it provides an ample ground for crossing different visions and for fertilisation of ideas.

The first meeting of the NSG was very fruitful, providing interesting approaches and conclusions referring to the **implementation of an electric Light Electric Vehicle (LEV) sharing system in Lisbon**, which are summarised hereafter.

2. TARGET USERS

The first issue under discussion was the potential target users of the motorcycle sharing system. Although the Ele.C.Tra survey provided useful orientations on this topic, there was a consensus that additional fine tuning would be required.

A system that combines **electric mobility (EM)**, **sharing solutions** and **two-wheeled vehicles** triplicates the challenges and requires: i) an in-depth analysis of the different user segments and their specific motivations; ii) a comprehensive vision of the actual competitors – that is to say the advantages/disadvantages of the current transport solutions that will lose users to the new sharing system; iii) a benchmarking of electric motorcycle sharing systems in the world that are currently operating (San Francisco – Scootnetworks, Barcelona – Motit, for example)

What type of travels is the system targeting?

Lisbon residents and Great Lisbon Residents. The sharing system is not addressing mass mobility. It targets **small market segments**, motivated to use two-wheeled vehicles, for flexibility and rapidity reasons, mainly for **short travels**.

For instance, the system will be rather appropriate to supply the needs of the **last mile** of commuters using public transports – i.e. commuters arriving to (or departing from) a transport interface (e.g. railway or underground stations) and travelling to a final destination area (in particular if that destination area is not well provided with quick public transport solutions, such as underground) or has a constrained mobility (top of the several hills of the city, historic

neighbourhoods, etc.). Users of private cars travelling to areas with traffic congestion, shortage of parking, or expensive parking solutions are also a target segment. Companies could also be motivated to subscribe to the system, to improve employees mobility in home-work travels and professional trips.

The LEV System should be implemented segment by segment, considering they have different needs.

Lisbon Tourists. Tourist's motivations to use motorcycles will be most probably related to flexibility, rather than quickness. **Small market segments** are also envisaged, considering that older people and families with children will tend to adopt other transport solutions.

Who are the main competitors to the LEV sharing system?

The main competitors are the **public transport system, taxis** and **private transport** (4-wheeled and 2-wheeled vehicles). For the tourism market there are in addition alternative solutions such as rental of **Segways** (two-wheeled, self-balancing, battery-powered electric vehicles) or **tuk-tuks** (three-wheeled electric vehicles providing guided visits in historic areas of Lisbon). In recent years there was an increasing of companies offering this type of touring showing that there is enough demand for this kind of services.

In addition to the sustainability principles of the electric mobility, the major attributes to support the position of the LEV sharing system towards the competitors should be built on **convenience/promptness** and **competitive pricing**. Nevertheless...

... the central area of Lisbon is well provided with public transport solutions (e.g. underground);

... taxis in Lisbon are rather low priced;

.... there is a strong commitment of people to the use of their own private vehicles.

Based on this background, the discussion addressed the major drawbacks/difficulties, as well as opportunities and solutions for the implementation of the LEV sharing system.

3. DRAWBACKS AND DIFFICULTIES

Major drawbacks and difficulties appear to be related to mind-sets and lack of information.

Mind-sets and behaviours

It is necessary to educate people both for **electric mobility** and for **sharing solutions**.

One example (not much successful) of car sharing makes evident that additional efforts are required: a subsidiary of the Lisbon public bus operator provides a car sharing service

(*Mobcarsharing*), with conventional vehicles, for more than five years. The demand is low and contrarily to similar services in other European cities, companies are the most important customers, not the individuals or families.

Mentalities take time to change, but attitudes are slowly changing: owning a vehicle is not as important in terms of social status as it used to be; young people want flexible transport solutions, rather than owning their own vehicle, concerns towards sustainable mobility are increasing...

To induce transfer from conventional transport solutions into sharing and electric mobility requires providing effective stimulus and incentives to people, therefore making evident the advantages of those new solutions. Delivering the adequate information (see below) is therefore essential to help overpassing the existing tangible and intangible barriers to change to electric and sharing mobility.

Portuguese people are not adverse to change and tend to be rather interested in new technology solutions. For this reason, innovative approaches (e.g. apps providing remote access) for the development and promotion of the LEV sharing system will certainly contribute to potentiate its success.

Lack of information

People are not aware of the available facilities and services (e.g. MOBI.E network of charging stations, how to share or rent an EV) and on the advantages of the EM (e.g. very low operating costs) and other related benefits, such as free parking areas for EV.

In fact, there is information, but it is dispersed and it is not efficiently targeting the specific groups of potential users. The municipality of Lisbon is considering to create an Internet Portal to aggregate all relevant information in relation to public transports and sustainable mobility. This tool will certainly contribute to disseminate information and increase awareness on sharing systems and electric mobility.

4. OPPORTUNITIES AND SOLUTIONS

Major recommendations and conclusions referring to opportunities and solutions for the implementation of the system were the following:

- ✓ Integration with public transport services will boost the feasibility of the sharing system. Complementary solutions considering combined tickets or cards for public transports/scooter sharing system should be developed, to ensure cost minimisation for end users and to attract a broader range of potential customers.

- ✓ Institutional users (large enterprises, public organisations) should also be motivated to adhere to the sharing system, using it for their day-to-day operations involving specific types of travels. These solutions could be implemented if the LEV sharing system is cost and time effective compared to the traditional solution of owning LEV fleets.
- ✓ If the national industry is involved in the system (e.g. technology development, supplying of equipments), it would be possible to obtain public funding to support the required investments, contributing to: improve the feasibility of the system; reduce final costs for the end users.
- ✓ Sharing systems are an interesting opportunity for manufacturers of electric vehicles, because these systems contribute to the mainstreaming of electric mobility; therefore active support from the manufacturers should be envisaged, for the launching and subsequent development of the system. In particular, electric scooters can contribute to the diffusion of electric mobility: motorcycles are the only type of electric vehicle that has removable batteries, therefore facilitating the charging operations (the major concern of potential users of EM), even if users don't have their own parking space.
- ✓ Integrating stakeholders beyond the area of mobility is important; large companies engaged in corporate social responsibility principles should be mobilised as sponsors of the system, improving their public image and contributing to reduce final costs for the end users. Advertising could be a good solution for these sponsors;
- ✓ Learning from other sharing systems is essential, to avoid pitfalls and to identify the conditions for success; there are many successful examples of sharing or hiring systems for bicycles (e.g. Barclays Cycle Hire in London, BUGA in Aveiro, Bicing in Barcelona), or for 4-wheeled vehicles (e.g. car2go in Amsterdam and other cities).

Concerning specifically **the business model** and its technical management, a few issues were also raised, namely:

- ✓ Efficient solutions to bring the motorcycles back to the main docking points should be outlined, in particular in peak hours (vehicles will depart mostly from central locations, going to dispersed, more peripheral destinations); this may result in shortage of vehicles in central locations, where demand is expected to be higher, while motorcycles are available in excess in more remote locations.
- ✓ A balanced size of the fleet should be defined; larger fleets will diminish the problem above, but will require higher initial investment costs; overall solutions should be established, to optimise customers' satisfaction, while minimising investment and operation costs of the system.

- ✓ In addition, dynamic price solutions could also be implemented, providing lower rates or even free travels, for regular customers picking up a LEV in a remote location and using it to be left in a central docking point (e.g. mobile messages could be used to inform target users on specific promotion prices for this purpose).
- ✓ To have a good product and to promote it to the target segments is fundamental; price is a determinant issue for the success of the operation and induction arguments should be solid and based on effective attributes of the system – i.e. competitive relation price/service quality.

5. COMMITMENT OF STAKEHOLDERS

The current operator of the Lisbon car sharing system (Carristur, a subsidiary of the Lisbon public bus company) could be interested in participate in the scooters sharing system. They already have experience on the management of car sharing systems and could extend their activities to cover LEV.

The municipality of Lisbon is envisaging to improve the mobility system of the city, focusing on the pedestrians' needs and considering as a first priority all possible sustainable transport modes. The municipality is also willing to increase the flexibility of the transport solutions, therefore it is much interested in collaborating with Ele.C.Tra and all the project stakeholders.

